

# Radiologic Sciences

## Radiologic Sciences Major

Radiographers, also known as radiologic technologists, perform diagnostic imaging examinations to assist physicians to diagnose or rule out disease or injury.

A Bachelor of Science degree, major in Radiologic Sciences (RS), includes two or more years of rigorous academic course work on campus and a two-year full-time professional phase/internship in an affiliated hospital-based school of radiologic technology that includes classroom and clinical education specific to radiography. Graduates are eligible to write the national certifying examination administered by the American Registry of Radiologic Technologists (ARRT) to become a registered technologist in radiography, RT(R).

A strong science and math aptitude is important for RS majors to possess since academic course work includes chemistry, physics, anatomy and physiology, microbiology, trigonometry, and statistics, in addition to general education courses. The full-time two-year professional program/internship (60 credits) consists of classroom and clinical instruction in patient care procedures, radiation physics and protection, principles of imaging, positioning, radiobiology, and pathology.

Students who have completed the prerequisite course work on campus and meet the GPA and grade requirements may be eligible to apply for the professional-level class and clinical. Transfer students must complete a minimum of 20 resident credits at NDSU prior to the start of the professional program to be eligible to apply. NDSU has affiliation agreements with ten hospital-based schools of radiologic technology that are accredited by the Joint Review Committee for Education in Radiologic Technology (JRCERT). Admission into the professional program is competitive. Specific admission criteria are established by each affiliated hospital program and generally includes completion of required courses, academic achievement, references, related experience, and an interview. In addition, students must comply with criminal background and conduct requirements.

During the professional program, specific letter grades are assigned by the hospital program, maintained on their program's official transcript, and are not included in calculation of NDSU's grade point average. Official transcripts are available upon written request from the hospital program. An NDSU grade of 'Pass' is awarded for successful completion of each term of the professional hospital program.

Information about the profession, curriculum, internship, and advising contacts are available from the Department of Allied Sciences (<http://www.ndsu.edu/alliedsciences>).

## Major Requirements

### Radiologic Sciences Major

**Degree Type: B.S.**

**Required Degree Credits to Graduate: 132**

### General Education Requirements

#### First Year Experience (F):

UNIV 189	Skills For Academic Success (Students transferring in 24 or more credits do not need to take UNIV 189.)	1
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#### Communication (C):

ENGL 110	College Composition I	3
ENGL 120	College Composition II	3
One Course of Upper Level Writing. Select one of the following:		3

ENGL 320	Business and Professional Writing	
ENGL 321	Writing in the Technical Professions	
ENGL 322	Creative Writing I	
ENGL 323	Creative Writing II	
ENGL 324	Writing in the Sciences	
ENGL 325	Writing in the Health Professions	
ENGL 358	Writing in the Humanities and Social Sciences	
ENGL 459	Researching and Writing Grants and Proposal	

COMM 110	Fundamentals of Public Speaking	3
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#### Quantitative Reasoning (R):

STAT 330	Introductory Statistics	3
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#### Science & Technology (S):

BIOL 220 & 220L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
CHEM 117 & 117L	Chemical Concepts and Applications and Chem Concepts and Applications Lab	4
CSCI 114 or CSCI 116	Microcomputer Packages Business Use of Computers	3-4

<b>Humanities &amp; Fine Arts (A): Select from current general education list</b>		6
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#### Social & Behavioral Sciences (B):

PSYC 111	Introduction to Psychology	3
Select from current general education list		3

<b>Wellness (W): Select from current general education list</b>		2
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<b>Cultural Diversity (D): Select from current general education list</b>		
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<b>Global Perspectives (G): Select from current general education list</b>		
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Total Credits		41-42
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## Major Requirements

<b>General Education Requirements</b>	40
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<b>Radiologic Science Major Requirements</b>	
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RS 111	Introduction to Radiologic Sciences	1
RS 496	Field Experience	60

Professional education (internship) within an accredited affiliated school of radiologic technology includes the capstone experience.

#### Related Courses Required:

BIOL 221 & 221L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
CHEM 260 or BIOC 460	Elements of Biochemistry Foundations of Biochemistry and Molecular Biology I	3-4
MATH 105	Trigonometry (or higher level)	3

Select one microbiology course and lab from the following:		3-5
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MICR 202 & 202L	Introductory Microbiology and Introductory Microbiology Lab	
MICR 350 & 350L	General Microbiology and General Microbiology Lab	
PHRM 125	Medical Terminology for Health Professionals	1
PHRM 170	Common Medicines & Diseases	2-3

or PHRM 300	Principles of Clinical Pharmacology	
PHYS 211 & 211L	College Physics I and College Physics I Laboratory	4
PHYS 212 & 212L	College Physics II and College Physics II Laboratory	4
<b>Special Major Electives (department approved)</b>		
Sociology: Select one of the following:		3
SOC 426	Sociology of Medicine	
SOC 440	Sociology of Aging	
SOC 441	Death and Dying	
Communication: Select one of the following:		3
COMM 308	Business and Professional Speaking	
COMM 315	Small Group Communication	
COMM 380	Health Communication I	
COMM 381	Patient-Provider Communication	
COMM 383	Organizational Communication I	
<hr/> Total Credits		132-136

### Degree Requirements and Notes

- All required courses must be completed with a grade of 'C' or above. All students must maintain a semester GPA of 2.0 or above for each semester in the College. A student who fails to meet this standard for two successive or three non-successive semesters may be terminated from enrollment in the College of PNAS.
- Completion of the prerequisites does not guarantee a student internship. Selection of interns is competitive. Please consult your Radiologic Sciences advisor for more information.